

CLAIMS

1. A method of operating a switch for frames in a computer network, comprising:
receiving a frame (the received frame) at a port of said switch, said received frame containing one or more indicia of frame type designation;
deriving a virtual local area network (derived VLAN) value in response to said one or more indicia of frame type designation;
accessing a forwarding data base with said derived VLAN value to determine a destination address; and,
forwarding, in response to said derived VLAN value, said received frame to an output port for transmission to the destination.
2. The method of claim 1 further comprising, said forwarding step forwarding in response to said derived VLAN value and said destination.
3. The method of claim 1 wherein said indicia of frame type designation further comprises: a protocol type.
4. The method of claim 1 wherein said indicia of frame type designation further comprises: a subnet value.
5. The method of claim 1 wherein said indicia of frame type designation further comprises: a virtual local area network established in said computer network.

6. The method of claim 1 wherein said indicia of frame type designation further comprises: an IP source address.
7. The method of claim 1 wherein said indicia of frame type designation further comprises: an index value associated with a port at which said received frame was received.
8. The method of claim 1 further comprising:
deriving a MAC address from said derived VLAN value and forwarding said received frame to a port for transmission to a destination having said MAC address.
9. A switch to forward frames in a computer network, comprising:

a port to receive a frame (the received frame), said received frame containing one or more indicia of frame type designation;

a parsing engine to derive a virtual local area network (derived VLAN) value in response to said one or more indicia of frame type designation;

a forwarding data base having said derived VLAN value as input and a destination address as output; and,

an output port to transmit said received frame, in response to said derived VLAN value, for transmission to said destination address.
10. The apparatus as in claim 9 further comprising:

a forwarding engine for forwarding said received frame in response to said derived VLAN value and said destination address.

11. A computer readable media containing instructions for the practice of the method of claim 1.

12. Electromagnetic signals travelling on a computer network, said electromagnetic signals carrying information to practice the method of claim 1.

13. A method of operating a switch for frames in a computer network comprising:

using one or more indicia of frame type designation found in the received frame to derive a virtual local area network (derived VLAN) value;

using the derived VLAN value in making forwarding decisions.

14. The method of claim 13 further comprising:
controlling broadcast domains in the computer network by forwarding in response to the derived VLAN value.

15. The method of claim 13 further comprising:
using an indicia of the receiving port in constructing the derived VLAN value.

16. A computer readable media containing instructions for the practice of the method of claim 13.

17. Electromagnetic signals travelling on a computer network, said electromagnetic signals carrying information to practice the method of claim 13.